

Discussion paper

Introduction of a Unique Student Identifier for the VET sector

The Nous Group, July 2011



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THINKING

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Preface



The Nous Group was engaged by the National Centre for Vocational Education Research (NCVER), on behalf of the Data and Performance Measurement Committee of the Ministerial Council for Training, Education and Employment to conduct stakeholder consultations on the possible introduction of a unique student identifier (USI) for the vocational education and training (VET) sector.

This paper was originally written in May 2011 as an information piece to complement stakeholder interviews. The paper's aim was to inform stakeholders and elicit feedback on the introduction of a unique student identifier (USI) for the vocational education and training (VET) sector. This consultation was part of a suite of work to inform the business case for the USI for Ministerial approval mid 2011.

This paper has been placed on the NCVER website for stakeholder to express further views on the introduction of a USI for the VET sector. Any comments should be sent to: dpmpc_secretariat@ncver.edu.au by 31 August 2011.

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1 Executive summary.

The Council of Australian Governments (COAG) has given in-principle support for the introduction by 2012 of a national unique student identifier (USI) for the VET sector, with a future capability of being fully integrated with the entire education and training system.

The complex and multi-sectored nature of the Australian education system means individuals are typically allocated multiple student identifiers throughout their study life. Many of these numbers are unique to sectors, training providers and jurisdictions, and currently there is no single source of information that sets out the entirety of the training undertaken by an individual. This situation leaves many vocational education and training (VET) graduates without a complete record of their achievements.

The Ministerial agreed purpose of the USI is *to record all accredited education and training undertaken and qualifications achieved for each individual who accesses vocational education and training over his or her lifetime.*

It is envisioned that the introduction of a USI will benefit all stakeholders. A unique identifier would facilitate greater control of a student's VET experience, making it easier for them to track their educational attainments and potentially reduce the costs of transferring between institutions. A USI would also benefit training providers with a record of learner attainment assisting with skills development, training plans and credit transfer. It would also provide a training record beyond the longevity of the training provider. For their part, policy-makers and education providers would have improved access to information to both assess the quality of educational outcomes and plan for future educational needs.

Several jurisdictions have already established state-based student identifiers that any national system would need to accommodate. It is also recognised that there would be costs to training providers and state training authorities in implementing any change. The medium to long-term net benefits to all stakeholders, however, are expected to be significant.

To examine these issues COAG has requested the development of a detailed business case and three pieces of concurrent work are underway to inform its preparation:

1. technological scoping
2. more detailed public consultation
3. an investigation into the legal, governance and privacy requirements.

This paper is designed to give a snapshot of the proposed USI and to facilitate and encourage feedback from a range of stakeholders in the VET system.



2 Introduction.

The Nous Group has been engaged by the National Centre for Vocational Education Research (NCVER) on behalf of the Data and Performance Measurement Committee of the Ministerial Council for Tertiary Education and Employment (MCTEE) to conduct stakeholder consultations relating to the possible introduction of a unique student identifier (USI) in the vocational education and training (VET) sector.

This consultation paper has been developed to inform stakeholders about the USI project and to describe its anticipated impact on the range of stakeholders who comprise the sector. The intention of the paper and subsequent discussion is to stimulate discussion and elicit feedback on the perceived opportunities and challenges presented by the introduction of a national USI.

The information collected from the consultation process will provide strategic input to the development of a full business case, which will be presented to Ministers for endorsement later this year. Any major issues, risks or concerns identified in the public consultation process will be drawn to the attention of Ministers, along with suggested action or strategies.

3 Background.

3.1 The current information arrangements in the VET sector do not meet the needs of some students or fully support the national reform agenda.

Students find it difficult to bring together their training and attainment history especially if they have studied at multiple RTOs and across state jurisdictions.

The compartmentalised nature of the Australian education system means that individuals are typically allocated multiple student identifiers throughout their educational journey. Student identifiers may differ between sectors, institutions and jurisdictions. This creates unnecessary complexity for students, providers and governments as students progress through the various education sectors—early childhood, schooling, vocational, higher and possibly adult education.

The lack of a USI means that there is no single source of information that sets out the entirety of the training undertaken by an individual within the VET sector. The weakness of this approach is exacerbated within the VET sector vis-à-vis other education sectors because there are a large number of diverse providers, there are constant entries and exits from the sector and the sector is state managed, making it difficult to manage and track attainment across jurisdictions.

This creates unnecessary difficulty and administrative burden for individuals seeking credit for their studies. It may also disadvantage VET graduates who cannot obtain a complete attainment record or transcript of their educational achievements if the RTO they attended has not maintained adequate records or has left the sector.



The lack of a reliable student data creates significant barriers to the optimal operation of the VET system.

The lack of a portable, national, system-wide and ‘unique to individual’ identifier has long been highlighted as a major limitation to being able to streamline education and training delivery and inform policy development, particularly in the context of the current broader demand-driven industry reforms.

In addition, some State Governments find it difficult to effectively manage their VET systems because of the lack of access to high-quality planning and policy information and individually identified student information.

3.2 Adoption of a student identifier could help overcome several real and important issues.

The introduction of a USI could:

- when combined with other systems, provide the potential for individuals to obtain an authenticated, collated and comprehensive record of their vocational education and training, to be used with employers and education providers
- allow governments to plan student-centred programs for systematic skills acquisition and lifelong learning in areas of need with a greater degree of integrity
- through central collation, reduce the amount of information that needs to be collected and stored by providers in student management systems
- promote the transparency of the VET system and allow more effective monitoring of educational outcomes
- help to build a database on VET skills acquisition, both at a point in time and longitudinally, that will support analysis by policy-makers and researchers of patterns in the distribution of educational attainment across the population.

The identifier would be used to collate information about the individuals’ record of VET education.

The proposed system would allocate a USI to every VET student in Australia. Information identifying the student, such as their name and date of birth, would be quarantined and stored in a unique student register, which would be maintained separately from education and training information. A USI would enable information from diverse sources, collected at different times to be more easily and accurately linked.

The proposed concept for the USI, which quarantines all personal identifying information in an independent agency, is designed to provide significant privacy protection, since only the individual will have access to personal data. Researchers and policy-makers will only have access to anonymous data.

Conversely, in the medium-term, students should have the ability to access a centralised source of information about their VET-based educational record, potentially producing consolidated transcripts and records of attainment.

The USI concept is not new and has been successfully implemented in Victoria, Queensland, New Zealand and South Australian is current in the process of



following suit. Evidence from these systems would suggest that there are real benefits to be obtained from a national USI system.

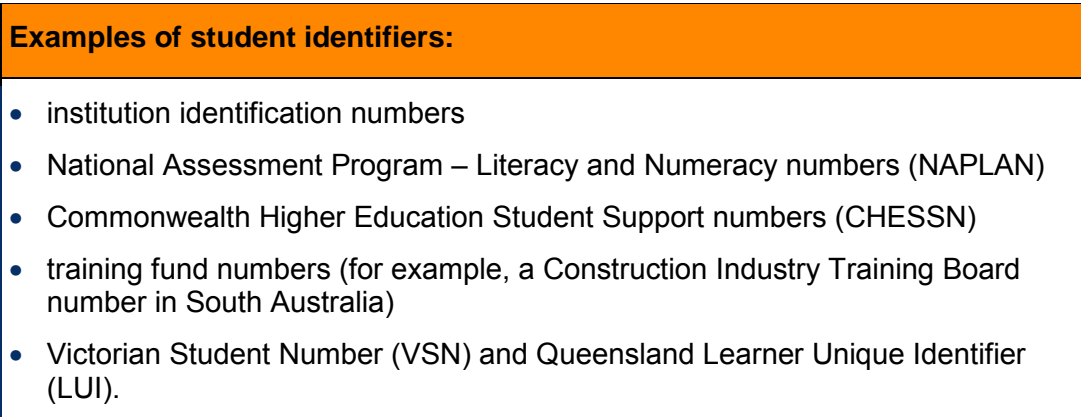


Figure 1: Examples of student identifiers.

3.3 COAG has committed to investigate a unique student identifier for the VET sector.

COAG requested and received a high-level preliminary business case in February 2011, which it then endorsed and sought a more detailed business case by mid 2011.

In light of the issues discussed above, on 7 December 2009 the Council of Australian Governments (COAG) gave in-principle support to the introduction of a vocational education and training unique student identifier.

During 2010, a preparatory business case for a VET unique student identifier was developed, informed by preliminary consultations within the VET sector.

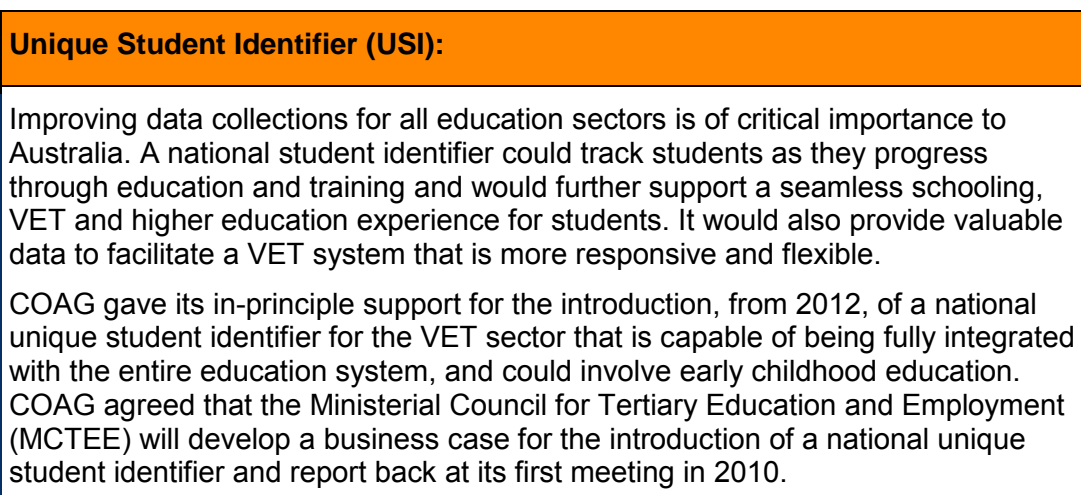


Figure 2: COAG Communiqué, 7 December 2009.



This preparatory business case was endorsed by COAG in February 2011 and the Data and Performance Measurement Principal Committee, with assistance from the Ministerial Council and an Expert Advisory Group, was asked to prepare a more detailed business case for COAG's mid 2011 meeting. This requires the preparation of three concurrent pieces of work:

1. technological scoping
2. more detailed public consultation
3. an investigation into the legal, governance and privacy requirements.

The expanded business case will examine both the benefits and the risks related to introducing the USI, which will enable COAG to be fully aware of the benefits and implications flowing from the introduction of a USI.

4 USI design principles and scope.

4.1 USI guiding principles.

Work to date on the USI proposal has been governed by a set of principles (see Figure 3) developed to guide the concept through to successful implementation.

Five key underlying principles will govern the development of the USI

1. The USI is established as a national initiative with nationally-agreed administrative arrangements.
2. A cross-sectoral framework is established for the whole education and training system, with the first phase of implementation in the VET sector.
3. Student identifying information is quarantined and stored separately from education and training activity to ensure an individual's privacy is protected, without the benefits of the USI being lost. This is achieved via a USI register that is established and administered by a third party, independent of other education and training data and business systems.
4. The USI builds on existing systems, thereby minimising system and legislative changes; for example, the Victorian Student Number (VSN) could be supplied instead of the USI, with linking via the USI register.
5. Students know and control their USI. Student ownership assists with privacy, but also ensures that individuals own their information and care about it being correct and up to date.

Figure 3: Underlying principles of a USI.

The proposed USI system would de-identify information to protect privacy and be implemented in a staged approach.

Central to the success of the system would be the anonymous nature of the information collected and stored. As already mentioned, information identifying the student would be quarantined and stored in a unique student register, which would be maintained separately from education and training information.



Data pertaining to an individual submitted by a training provider to the National VET Collection held by the National Centre for Vocational Education Research would include a USI, but would not include identifying information such as a student's name. The training information would be stored with the assigned USI, and therefore not identifiable when analysed by policy-makers and researchers.

4.2 Proposed scope of the USI.

It is proposed that a VET USI will be allocated to current and new students, and used every time they enrolled to study for a new qualification or VET-based short course. It is proposed that the minimum scope for a VET USI is that:

- It applies across all accredited VET programs under the Australian Qualifications Framework (AQF).
- It is of national scope and application and covers the operation of all registered training organisations.

The USI model would apply to international students enrolled in any AQF qualification with an Australian training provider, whether onshore or offshore. At this stage, because of the additional investment, complexity and risk involved, issuing a retrospective USI to capture past participation and achievement is out of scope.

4.3 The intention is deliver the USI over two phases.

It is also recognised that the introduction of the any new system causes short-term implementation difficulties. The current proposal includes a staged approach to implementing the system:

- **Stage 1** – creation of a USI register that would store the USI number and personal information. This would be maintained by a dedicated agency and would quarantine personal information from training information. Students and RTOs would be required to quote their USI number when enrolling into courses or submitting data to the National VET Provider Collection. Access to the USI register would be limited to USI register staff.
- **Stage 2** – the introduction of the ability for students to obtain consolidated records of attainment or transcripts of their education information into the USI system. Access to the USI register would be extended to students and training providers through a secure web interface. The system would facilitate the potential introduction full e-portfolio functionality, which would allow students to have the ability include training and other information in a single online portfolio.

The system could potentially be expanded to other education sectors if it proves successful.

If the system proves to be successful within the VET sector COAG has expressed a desire to see the USI expanded to students in the whole education system, at which point the potential benefits of a USI system would increase and include the ability to better integrate information from all sectors of the education system and improve the ability for long-term education system planning.



Stakeholder Feedback

1. How would the introduction of a national USI assist in improving the VET system?
2. How might the introduction of a USI influence your ability to do your job or achieve your educational goals?

5 What would be the benefits of a unique student identifier?

A national USI would enable students to access their education records more easily, reduce administrative workload for training providers, and improve the ability of researchers and policy-makers to understand trends in the sector.

The USI is expected to create a range of benefits to all stakeholders in the VET system.

5.1 For students.

For *students*, the USI would:

- facilitate greater control of their VET training. It would make it easier for them to find, collate and authenticate all their educational attainments in a single portable record that can be used for employment as well as further education and training
- provide a training history beyond the longevity of the training provider
- enable future services and innovations, such as e-portfolios and qualification-verification systems by providing an electronic record of learner attainment
- support the transition of students between institutions and potentially reduce the cost of transition by minimising the amount of information that would need to be collected and stored on previous educational experience. If extended to other educational sectors, this benefit would be magnified.

5.2 For training providers.

For *training providers*, the USI would:

- reduce the administrative burden associated with data collection and reporting by providing an electronic record of learner attainment. This would be particularly useful in helping registered training organisations (RTOs) meet their national archiving requirements



- through an electronic record of learning and achievement, assist with skills development, training plans, recognition of prior learning (RPL) and credit transfer
- assist in managing student entitlements
- provide a training history beyond the longevity of the training provider.

5.3 For governments.

For *governments*, the USI would:

- enable focus and development of student-centred programs for systematic skills acquisition and lifelong learning in areas of need with a high degree of integrity.
- enable the capture of training activity, irrespective of where the training occurs. Currently, the number of students undertaking VET cannot be identified and there is no way of knowing the extent to which individuals undertake VET with a number of providers over a year
- be a foundation element for improving the performance and transparency of the VET system. A USI would allow better monitoring of education and training policy goals.

5.4 For analysts and researchers.

For analysts and researchers, the USI would:

- provide an authoritative source of data on the distribution of educational opportunities and attainment across the population
- support research and analysis to provide a sound basis for planning and thus assist governments to make the most effective use of educational resources.

Stakeholder Feedback

3. Do you agree with the benefits outlined above?
 - a. Are there any other benefits from your perspective?
 - b. What drawbacks or risks should be considered?



5.5 Summary of benefits.

Benefits	Students	Training Providers	Governments	Researchers
Record learning, skills development, training qualifications and achievements	✓	✓		✓
Manage student entitlement to funded training	✓	✓	✓	✓
Track student progress and identify future training options	✓	✓	✓	✓
Assist with credit transfer and recognition of prior learning	✓	✓		
Assist with learner pathways	✓	✓	✓	✓
Reduce administrative burden for RTOs (in keeping student records/archiving/qualification register)		✓	✓	
Maintain training history beyond the lifespan of the RTO	✓	✓	✓	✓
Capture cross-jurisdiction training	✓	✓	✓	✓
Enable qualification verification	✓	✓	✓	
Enable e-learning portfolios	✓	✓		
Manage training activity over time and across training sectors	✓	✓	✓	✓
Improve VET system performance	✓	✓	✓	✓
Monitor the effectiveness of government education programs			✓	
Improve data quality	✓	✓	✓	✓
Enable longitudinal data analysis		✓	✓	✓
Understand distribution of education and training across the population			✓	✓

Immediate benefits Long-term benefits

Figure 4: USI benefits matrix.



6 What would be the challenges with implementing a USI and how should they be overcome?

Two other projects are being conducted concurrently to the public consultation process. The aim of these is to examine the business system requirements from the technical perspective and from the legal, governance and privacy perspective. The information collected from the three streams of work will be brought together to inform the development of the business case.

6.1 Privacy concerns.

Addressing issues of privacy and confidentiality will be a major factor in the successful design and implementation of a USI for VET. Experience in Victoria and New Zealand has highlighted the importance of ensuring that USI privacy requirements are understood and addressed in all phases of development, from planning to implementation. This is especially important because the system involves the transfer of personal information to and from a central agency, which could be linked and used for an expanding range of purposes. Key elements of a privacy and confidentiality policy for a USI would be expected to include:

- an unambiguous statement of commitment to best practice privacy and confidentiality principles and how those principles have been built into the USI implementation
- protocols that specify the agreed collection, use and release of student information and the transparent and accountable processes to be followed if these are changed or expanded
- rules over the collection, use and disclosure of a student's USI and the information attached to it
- an independent national agency to administer the system, including exercising control over access to the central database and specification of the purposes for which the USI can be used to protect the student
- governance arrangements that promote compliance with privacy obligations
- commitment to nationally consistent privacy regulation and mechanism for complaints handling
- a USI communications strategy to promote public confidence and awareness.

Privacy implications of a USI are being examined as part of a separate exercise, which includes expert advice from a former Privacy Commissioner. Stakeholders are encouraged to provide their views as part of their response to this consultation paper.

6.2 Governance issues.

The USI must be managed within a governance arrangement that enacts and demonstrates strong protection of confidential data in order to gain and maintain support from all stakeholders. It is recognised that without a transparent and



effective structure and associated processes there will be limited support for its introduction.

At the national level, at a minimum, a representative governance group is needed to develop and manage data standards, procedures, protocols and the operation of the national USI facility. Greater rigour would be required should individual entitlements or institutional funding become dependent on information linked to the USI. This would include, at a minimum, establishment of a board responsible for ongoing audit, assurance and accountability and oversight of USI management.

The separation of personal information (contained on the USI register) from training activity information is the foundational feature of the USI and this will require a body, other than NCVET, to maintain the USI register.

Unless an existing government body is available to take on the role, an independent third-party agency would need to be established under appropriate legislation to both ensure that essential privacy measures are built into the system and to manage the USI register¹. The managing body of the USI register would need to demonstrate and maintain an absence of conflict of interest. It would also need to provide a secure ICT environment and be answerable to a Federal Minister, government agency or statutory authority. It may be appropriate for the body to have a formal charter of obligations to students and other providers of information, linked to the USI, and published protocols specifying the uses to which that information can be put.

Implementation of a national system of USIs that accommodates state-based unique identifiers will require clearly defined linkages with other data and technical standard information sets, including the Australian Quality Training Framework (AQTF) standards for RTOs, the national VET data collections managed by NCVET, the state and national apprenticeship and traineeship data-management systems, and the data collections managed by Australian Government departments for specific programs. The USI register would therefore need to link, but clearly stand independent of, these other data sources.

These issues are being examined as part of a separate exercise, but stakeholders are encouraged to provide their views through the consultation process.

6.3 System design and technical issues.

From a technical point of view there are several key principles that are core to the proposal:

- The USI is established as a coherent national initiative with agreed administrative arrangements.
- Student-identifying information is quarantined and stored separately from education and training activity to ensure that an individual's privacy is protected, without the benefits of the USI being lost.

¹ The separation of the register and training activity is a similar approach to that adopted in Victoria, where the Victorian Student Register (VSR) is managed by the Victorian Curriculum and Assessment Authority (VCAA).



- The USI would be a randomly generated number with no recognisable pattern, ensuring that students cannot be identified by the USI alone and that a student's USI cannot be retrieved and used without permission.
- The USI builds on existing systems, thereby minimising system and legislative changes; for example, the Victorian Student Number (VSN) could be supplied instead of the USI, with linking via the USI register.
- Students know and own their USI, but can disclose it to their training provider.

Separating the personal identifying information stored within the USI register from education and training data provides the maximum level of protection for maintaining the privacy of individuals. It also differentiates the USI from other identifiers related to specific business processes.

To prevent problems of multiple USIs being assigned to the same student, it is recommended that:

- A strong data standard and consistent business rules for the USI register housing the student identifier information are adopted and maintained.
- All student name changes are tracked in the USI register.
- The system performs name-matching based on predefined business rules before a new USI is created.
- Only students and their delegate may request a USI.
- The students and their delegates are notified of any changes to their details.

Where duplicate records are identified, users with the appropriate authority should be permitted to merge multiple USIs. Cross-matching data against other registers, such as jurisdiction-based birth registers could be possible, however, not without significant forethought and careful consultation and consideration.

The ways in which the USI can be used could be prescribed by legislation; for example, legislation would both restrict the use of the USI to the education and training system and prohibit its use as an identifier outside the sector.



There are a number of different ways in which the USI can be obtained

- *Student-supplied USI:* a student can request a new USI from the USI register if they do not already have one, or request notification of their existing USI. The student then provides the USI to the training provider on enrolment.
- *RTO-supplied USI:* if the student does not have a USI at the time of enrolment or does not remember their USI, the RTO can obtain or look-up a USI on their behalf (with their permission). The student would supply the training organisation with a form of identification (for example, driver's licence), which would be used by the RTO to perform a search for an existing USI. If the search returns one or more USIs for the student, the RTO is responsible for manually selecting the correct USI. If the search returns no USI for the student, the training organisation can request the generation of a USI for the student.

Figure 5: Obtaining a USI Number.

6.4 Implementation and maintenance costs.

The cost of implementing a USI for the VET sector will be determined during the development of the business case. However, it is recognised that costs could potentially impact on state training authorities, providers, and consequently on students, although experience with the implementation of other identifiers indicates costs can be contained.

The cost of implementing a USI would also depend upon the degree to which synergies with existing state and national VET systems can be realised. Some states have already invested in a USI system and these states may find that implementing a national USI is less costly than anticipated.

The USI would facilitate a range of benefits to students, training providers, governments and researchers that would improve student VET experience and enhance the quality and transparency of the VET system. The business case is anticipated to demonstrate the costs are outweighed by these benefits.

The following table summarises some of the risks, issues and challenges.



6.5 Summary of challenges.

Challenge	Possible Strategy
Privacy of individuals is protected	The governance of the USI system would be designed to protect the privacy of individuals. This includes the separation of identifying information from training information, the establishment of a dedicated body to maintain and protect confidential information, and student ownership of their USI number.
Adequate governance arrangements are in place to ensure stakeholders have confidence in the system and processes associated with the USI	The design of the USI system and the governance arrangements that guide it are being examined in detail. Examination of the governance arrangements of similar systems are being examined to find best practice models.
A high standard of data quality is maintained in the USI register	The establishment of a dedicated body to maintain the USI database, with defined procedures for the establishment and maintenance of USI numbers.
Compliance costs are contained for RTOs	For most RTOs the addition of a USI field to their existing databases could be managed through software updates to their student management systems.
It is a condition of AQTF10 ² that 'The RTO must meet the requirements for implementation of a national unique student identifier'.	Costs of identity checks by RTOs will be offset when re-enrolling students need only to provide their USI.
A USI system is designed to accommodate future possible technological and public policy changes	The design of any possible USI system is being done with possible future uses of the USI being considered, including e-portfolios.

Table 1: USI Challenges.

² AQTF is the Australian Quality Training Framework, which sets out the conditions of registration for a training provider. It is the national set of standards which assures nationally consistent, high-quality training and assessment services for the clients of Australia's vocational education and training (VET) system. See link below for more information
http://www.training.com.au/documents/Dezem%E2%80%9393AQTF_EssentialConditionsandStandardsforInitialRegistration_8%20June_2.pdf



Stakeholder Feedback

4. Would the proposed approach to implementing the USI adequately protect a student’s personal information from inappropriate or unauthorised collection, use or disclosure?
5. A comprehensive approach is being developed to protect privacy should a USI be introduced. Is there anything else, over and above the measures listed in this paper, which should be considered?
6. Are there any other risks which need to be considered before a USI is implemented?
7. Please suggest changes to the proposed USI that would improve the overall approach to achieve the desired result for different stakeholder groups.

7 Next steps.

As outlined above, the information collected during the consultation process will be combined with other streams of work to inform the USI business case and ultimately the final design of any USI system.

Face-to-face and telephone interviews have taken place during May 2011 to capture the views of students, training organisations, researchers and system administrators.

The purpose of this discussion paper is to provide the opportunity for others to have their input into the final design of the USI business case.

COAG will be presented with the USI business case mid-year (2011) and will use the information contained within it to make a final decision on whether to proceed with the introduction in 2012 of the proposed system.

Responses to this discussion paper should be emailed to: dpmc_secretariat@ncver.edu.au.

Activity	Timing
• Consultations and preparation of business case	May to June 2011
• COAG considers proposal	Mid 2011
• Proposed introduction of a USI	2012

Figure 6: USI Business case development – timeline.